REMARKS

Claims 1-40 stand rejected. Claims 1-40 are presently pending. Applicant sincerely thanks the Examiner for the courtesy extended to Applicant's representative, Andrew Reibman, Esq., during the telephone interview of May 25, 2005. In view of the following remarks, Applicant respectfully submits that all of the presently pending claims are allowable. Reconsideration of the Application is respectfully requested.

1. Rejection of Claims 1-7, 9-31 and 36-40 (35 U.S.C. § 103)

Claims 1-7, 9-31 and 36-40 stand rejected under 35 U.S.C. § 103(a), the Examiner alleging they are unpatentable over U.S. Patent No. 5,439,406 to Fuwa et al. ("Fuwa") in view of U.S. Patent No. 3,829,655 to Thibault ("Thibault") and U.S. Patent No. 4,389,438 to Ohtsuki et al. ("Ohtsuki"). Applicant respectfully submits that none of the cited references or their combinations render any of Claims 1-7, 9-31 and 36-40 obvious, for at least the following reasons.

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the proposed combination of prior art references must teach or suggest all the claim limitations. M.P.E.P. § 2143.03. Applicant respectfully submits that none of the cited references teaches or suggests "a heating layer configured to heat a touch screen adhered to a monitor" as recited in Applicant's claim 1.

Fuwa generally describes a method for peeling a glass safety panel bonded to a front surface panel of a cathode ray tube (CRT). The surface of the safety panel is rapidly heated by an infrared heater so that the resin layer bonding the panel to the CRT is heated to its melting point. Thibault generally describes an electrical heating envelope including a layer of resilient insulating material interposed between the heating plate and a vessel to be heated. Ohtsuki generally describes a process for preparing laminates including a heat treatment. None of the references, alone or in combination teach or suggest a heating layer configured to heat a touch screen adhered to a monitor.

In the Office Action mailed on January 25, 2005, the Examiner alleged that "Fuwa et al. shows the method and apparatus for removing a front panel from a cathode ray tube (crt)" (paragraph 2, page 2). In fact, Fuwa et al. generally describe a method for peeling a *safety panel* from a *defective* CRT, for purposes of recycling both the panel and the crt *envelope* (col.1, lines 19-24).

First of all, Fuwa's safety panel is a glass layer (col.6, lines 31-32) bonded to the CRT for anti-explosion protection (col.1, line 16). A safety panel is made of glass (col.6, lines 31-32). As such, it can withstand temperatures well above 1000°C. A touch screen, on the other hand, is a complex device containing sensors and possibly integrated electronics. The touch screen may be made of plastic which may melt, decompose or burn, possibly releasing toxic chemicals, if overheated. Therefore a heating method such as the one described by Fuwa, which is based on high-intensity infrared heaters, are not applicable to the problem of removing a touch screen.

Second, the method of Fuwa is applied when the CRT is found to be defective (col.1, lines 19-24). Therefore in Fuwa's method no care need be exercised to make sure the CRT itself is not damaged by the heat treatment. The present application, on the other hand, is directed to the removal of a touch screen from a monitor which may possibly be fully functional. The method of Fuwa only ensures that the safety panel and the CRT envelope, both made of strong glass, are not damaged. A fully functional monitor, on the other hand, may contain easily damaged electronic parts and possibly include a plastic housing. One would not reasonably expect a method based on high-intensity heating to prevent damage to such parts.

Finally, the purpose of Fuwa's method is to recycle only the passive parts of the original CRT, namely the safety panel and the CRT envelope (i.e., the glass enclosure; see col.1, lines 19-24, and Fig.1). No attention need be paid in Fuwa's method to protecting other parts, or avoiding melting, burning or decomposition which may occur if excessive temperatures are applied.

Based on the foregoing discussions, Applicant respectfully submits that Fuwa does not fairly teach or suggest the removal of a touch screen adhered to a monitor. A heater for this purpose can not be said to be configured to heat a touch screen.

Separately and independently, Applicant respectfully submits that the proposed combination of references does not render Applicant's claim 1 obvious because at least some of the references are not analogous. To rely on a reference under 35 U.S.C. 103, it must be in an analogous art. See MPEP 2141.01. MPEP 2141.01(a) makes clear the requirement that *all* art used in a Section 103 rejection must be analogous to Applicant's claimed invention. In the Office Action mailed on January 25, 2005, the Examiner stated that Thibault and Ohtsuki are analogous because "the problems to be solved include uniform heating of a curved surface and heating an adhesive between layers of a laminate." Applicant respectfully disagrees with the Examiner's statement. When applying 35 U.S.C. 103, the claimed invention must be considered as a whole. *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986). Applicant submits that uniform heating of a curved surface is not a problem addressed by the present invention, but rather a possible byproduct of its solution. Likewise, heating of an adhesive between layers of a laminate is not the problem to be solved by the present invention. Although it might arguably be said that heating an adhesive between a monitor and a touch screen is an intermediate step in the solution of the problem addressed by Applicant, this is not the same problem as heating a paper-thin layer of laminate as described by Ohtsuki. One might expect that conduction is a good method of heating paper-thin laminates even when their thermal conductivity is low. However, Applicant does not agree that an ordinary artisan would be led to conduction to heat adhesive layers bonding touch screen to monitors, which are large objects of heterogeneous composition.

Applicant submits that, in the context of the claimed invention, the heating of the contents of a vessel (the field of the device described in Thibault) is not "reasonably pertinent" to the problem of removing a touch screen from a monitor. Applicant also submits that "heating an adhesive between layers of a laminate" (the field of Ohtsuki) is not "reasonably pertinent" to the same problem, since a laminate of the type described in Ohtsuki is not a part of either the monitor or the touch screen.

Separately and independently, Applicant respectfully submits that the Examiner has failed to make out another essential element of a prima facie case of obviousness, a motivation to combine the references. To reject, the Examiner must find a suggestion to combine the references that is "clear and particular". *In re Dembiczak*, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999). The requirement is for "actual evidence" of the proposed motivation to combine. Teleflex, Inc. v. Ficosa North America Corp., 299 F.3d 1313, 1334, 63 USPQ2d 1374 (Fed. Cir. 2002). Applicant respectfully submits that an ordinary artisan would not be led to apply a technique for activating an adhesive in a paper-thin laminate to soften an adhesive bonding a touch screen to a monitor, because the touch screen bonded to a monitor is a large heterogeneous object as discussed above.

In the Office Action mailed on January 25, 2005, the Examiner stated that "[o]ne of ordinary skill in the art would understand that the same heating mechanism can be used to either activate an adhesive for lamination or soften an adhesive for delamination." Applicant traverses the Official Notice and respectfully request that the Examiner cite a reference or provide an affidavit in support of the rejection. See MPEP § 2144.03.

Applicant therefore submits, for at least all the above reasons, that Fuwa, Thibault and Ohtsuki or their combinations all fail to teach or suggest the claimed subject matter of Claims 1, and respectfully requests the withdrawal of the rejection of claim 1.

Independent claim 13 recites "means to heat a touch screen adhered to a monitor". Independent claim 15 recites "a heating layer configured to be disposed in close proximity to the monitor". Independent claim 24 recites "a heating layer configured to heat a touch screen". Independent claim 40 recites "a heating layer configured to be disposed in close proximity to the touch screen". These claims should be allowable for at least reasons similar to those given above for independent claim 1.

Claims 2-7, 9-12, 14, 25-31 and 36-37 depend from claims 1, 13 and 24 and thus should be allowable for at least the reasons given above for their respective parent claims.

Claim 2 also should be allowable for separate and independent reasons. Claim 2 recites a device "wherein the heating layer is configured to be placed in direct contact with the touch screen." The Examiner admits that the base reference, Fuwa describe only a method using radiant heat. In the Office Action mailed on July 2, 2004 the Examiner alleges that Thibault shows a device using conductive heat, and that Ohutski teaches to combine Thibault with Fuwa. In addition to the argument made above with respect to claim 1, Applicant respectfully submits that none of the references in the proposed combination teach the "direct contact" element of claim 2, and in fact the references teach away from the recited claim limitation.

Thibault and Fuwa actually teach away from the recited system with direct contact. Thibault's device relates to the heating of the contents of vessels, for example glass vessels. Thibault generally describes a heating envelope in the shape of the vessel to be heated, including a *thermally insulating* sheet 7 (for example, of asbestos: see Thibault col. 2, lines 40-43) interposed between the heating elements and the vessel. Thibault does not disclose or suggest having a heating element in *direct contact* with the object to be heated. Fuwa identifies as one of the key advantages of their method the *lack of a contact* between the panel and the infrared heating element. This allows a "clean heating" "without smudging the surface [of the safety panel]" (col.6, lines 28-30). The structure of the apparatus described by Fuwa further supports the view that Fuwa teaches away from a heating method based on the direct contact between the surface of the panel and the heating element. Referring to Fuwa Fig.4, the CRT is moved on rails between the supply/take out position A and the heating position B. The heating elements are fixed. Therefore a clearance of about 15mm (col.5, lines 7-9) is necessary for the CRT to be moved without danger of scratching the surface of the panel and/or damaging the heating elements.

In the Office Action mailed on January 25, 2005, the Examiner stated that "it would have been within the purview of one of ordinary skill in the art to use a heating element which contacts the panel when smudging is not important such as when there is no intention to reuse the panel." However if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. *In re Ratti*, 270

F.2d 810, 123 USPQ 349 (CCPA 1959). In this case the principle of operation of the method described in Fuwa would be drastically changed by the replacement of infrared heating with contact heating. For example, Fuwa teaches that the actual temperature reached by the monitor critically depends on the heating time (Fuwa, col.5, lines 7-16). On the other hand, contact heating would tend to quickly establish thermal equilibrium between the heating element and the CRT, thus changing the fundamental mode of operation of the method. Also, the cover member 20 would no longer be sufficient to prevent heating of the backside of the CRT envelope (col.4, lines 43-50), so another method would have to be found.

Applicant therefore respectfully submits that the Examiner's proposed combination of references does not render Applicant's claim 2 obvious, and respectfully requests withdrawal of the rejection. Claim 36 depends from claim 2 and is therefore allowable for the same reasons. Claim 14 recites a heating device wherein "the heating means is configured to be placed in contact with the touch screen"; Claim 16 recites a method wherein "a touch screen adhered to the monitor is in contact with the heating layer". These claims should be allowable for at least similar reasons to claim 2. Claims 17-23 and 38-39 being dependent from Claim 16, Applicant submits that these claims are similarly allowable.

Claim 5 recites "a temperature controller coupled to the heating layer". Claim 6 recites "a temperature probe disposed in close proximity to the heating layer." Thibault describes a temperature controller including a thermocouple "embedded in member 11 or in contact with an inner surface of metal member 11". The presence of a thermal insulator, with an associated thermal resistance, between the thermocouple and the vessel will cause a substantial temperature differential between the two, with an associated error in the temperature regulation. Therefore Applicant submits that the limitations of Claims 5 and 6 are not found in Thibault, and Claims 5 and 6 are allowable for this reason in addition to the other reasons discussed previously. Claim 7 being dependent on Claim 6, Applicant submits that Claim 7 is similarly allowable. In the Office Action mailed on January 25, 2005, the Examiner stated that "the features upon which applicant relies (i.e., error free temperature regulation) are not recited in the rejected claim(s)." It is well known, however, that better temperature regulation is obtained if a temperature sensor is in good thermal contact with the object whose temperature is to be regulated. The structural features positively recited in claims 5 and 6 will necessarily result in a better temperature regulation than the arrangement described by Thibault, where a thermal insulator is interposed between the thermocouple and the heated object.

Claim 20 recites “removing material remaining on the front surface of the monitor by chemically dissolving the material off of the monitor”. Applicant respectfully submits that this limitation is neither taught nor suggested by any of the cited references. Fuwa generally describes removing leftover resin with the spatula 7, by an ultrasonic rinsing process, or by steel wool and the like (col.5, lines 32-40). Fuwa et al. do not suggest or disclose a chemical process. Therefore, Applicant submits that Claim 20 is allowable for at least his reason.

In the Office Action mailed on January 25, 2005, the Examiner stated that “ultrasonic rinsing would generally result in chemical dissolving of the remaining adhesive.” Applicant respectfully submits than dissolution by ultrasonic means is a physical, not chemical, process. As to the other statement by the Examiner that “chemical dissolving is a well known alternative for removing remnant adhesive” (page 7), the Examiner has not provided a reference to support this statement.

Independent Claim 16 recites “disposing the monitor ... so that a touch screen adhered to the monitor is in contact with the heating layer” and “heating the touch screen”. This limitation is neither taught nor suggested by any of the cited references. In fact, none of the cited references discuss touch screens at all. Moreover, as discussed above for claim 2, both Fuwa and Thibault teach away from placing an object to be heated in direct contact with a heat source.

Claims 17-23 and 38-39 depend from claim 16 and thus should be patentable for at least the same reasons as their parent claim 16.

For at least the foregoing reasons, Applicant submits that Claims 1-7, 9-31 and 36-40 are allowable and respectfully request withdrawal of all rejections.

2. Rejection of Claim 8 (35 U.S.C. § 103(a))

Claim 8 was rejected under 35 U.S.C. § 103(a), the Examiner alleging it is unpatentable over Fuwa et al., Thibault, and Ohtsuki et al., and further in view of U.S. Patent No. 4,593,752 to Tipton ("Tipton").

As an initial matter, Claim 8 depends from claim 1, and thus should be allowable for at least all the reasons given above for claim 1.

Separately and independently, Applicant respectfully submits that none of the references or their combinations render Claim 8 obvious, for at least the following reasons. Claim 8 recites a heating device wherein "the material of the heating layer includes silicone". The Examiner proposes a four-way combination to eliminate the defects of the base reference Fuwa. Applicant traverses the proposed motivation to combine the references. An ordinary artisan in the monitor repair art would not be lead to look for heater designs in food preparation – Examiner's reconstruction is purely hindsight using Applicant's invention as roadmap to combine four different references from four different fields. Tipton is not analogous art. Moreover, as mentioned in Section 1 above, Fuwa teaches away from the use of contact heating, which would teach away from any combination of Fuwa with Tipton.

In the Office Action mailed on January 25, 2005, the Examiner stated that "any judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning" and that "so long as it takes into account only knowledge which was within the level of ordinary skills at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper." Applicant respectfully submits that it was not common knowledge at the time the invention was made to use heaters from the food industry to heat a monitor, and that therefore the motivation to combine was necessarily "gleaned only from the applicant's disclosure."

For at least the foregoing reasons, Applicant submits that Claim 8 is allowable and respectfully request withdrawal of the rejection.

3. Rejection of Claims 32-35 (35 U.S.C. § 103(a))

Claims 32-35 were rejected under 35 U.S.C. § 103(a), the Examiner alleging it is unpatentable over Fuwa, Thibault and Ohtsuki, and further in view of U.S. Patent Appl. Pub. No. 2004/0,149,733 to Abbott et al. ("Abbott").

As an initial matter, Claims 32-35 depend from claim 1, and thus should be allowable for at least all the reasons given above for claim 1.

Separately and independently, Applicant respectfully submits that none of the references or their combinations render Claims 32-35 obvious, for at least the following reasons. To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Claim 32 recites "placing the monitor on the heating layer, with the touch screen facing down." None of Thibault, Ohtsuki and Abbott indicates any particular orientation of any physical element. Applicant notes that the drawings in both Thibault and Abbott could indifferently be side views or top views. Fuwa shows a CRT facing up (FIG.4). A similar argument applies to claim 33, which recites "applying the heating layer to the front of the monitor in a standing position."

Claim 35 recites "heat resistant tape adapted to secure the heating layer to the monitor." None of the references cited by the Examiner teaches or even suggests a heat resistant tape. Abbott mentions that "[s]haped heaters may be held in contact with an object to be heated by standard means, e.g., clamps, bolts, belts, or surface tension" (paragraph 0061). However, Abbott does not teach the use of heat resistant tape, neither would heat resistant tape qualify as a "standard means" to secure a heating layer to a monitor.

Moreover, Applicant respectfully traverses the combination of Abbott with Fuwa, Thibault and Ohtsuki. The mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). "There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). As discussed above, the field of the presently claimed invention relates to the maintenance of monitors, which is not commonly related to the field of injection molds. Abbott relates to the heating of injection molds, and does not suggest applicability to the field of monitor repair. None of Fuwa, Thibault or Ohtsuki indicate the desirability of the clamps and bolts of Abbott. Finally, a person of ordinary skill in the art would not turn to a reference that relates to a problem of a different nature than that on hand. Applicant therefore submits that the Examiner's combination of reference is based on improper hindsight and not on a motivation to combine found in the prior art.

Finally, Applicant respectfully traverses the Examiner's statement that "by using non-adhesive connectors to keep the heater in proximity of the monitor, any orientation would be practical as gravity would not be a factor in keeping the heater and the article together" (paragraph 4, page 4). Orientation will clearly have an effect on the quality of the thermal coupling due to the finite weight of both the monitor and the heating layer.

For at least the foregoing reasons, Applicant submits that Claims 32-35 are allowable and respectfully request withdrawal of all rejections.

CONCLUSION

In view of the above amendments and remarks, it is respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

The Office is authorized to charge any fees associated with this Amendment to Kenyon & Kenyon Deposit Account No. 11-0600.

Respectfully Submitted,

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Dated: May 25, 2005

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